

IN THE CLAIMS

Please cancel Claims 23, 42, and 43.

Please add new Claims 59-64 as indicated below.

Please amend the claims as indicated below and in clean form pursuant to 37 C.F.R. § 1.121(c)(1)(i). A version of the amended claims with markings on a separate sheet pursuant to 37 C.F.R. § 1.121(c)(1)(ii) is provided in Appendix B, and a complete set of pending claims, as amended herein, is provided pursuant to 37 C.F.R. § 1.121(c)(3) in Appendix C.

Amended Claims in Clean Form Pursuant to 37 C.F.R. § 1.121(c)(i)

1. (amended) A process for isolating nucleic acids comprising the following steps:

- charging a non-siliceous surface from a given direction with nucleic acids, wherein said non-siliceous surface has two opposing sides;
- immobilizing the nucleic acids on one side of the non-siliceous surface;
- releasing the immobilized nucleic acids from the non-siliceous surface; and
- removing the released nucleic acids from the same side of the non-siliceous surface on which the nucleic acids were immobilized.

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2. (amended) The process according to claim 1, wherein the non-siliceous surface is oriented so that one of the two opposing sides of the non-siliceous surface is on top of the other side and so that the charging and removal of the nucleic acids takes place from the top opposing side of the non-siliceous surface.

3. (amended) The process according to claim 1, wherein, between the immobilization and release steps, a washing of the immobilized nucleic acids with at least one washing buffer takes place.

4. (amended) The process according to claim 3, wherein the washing includes the following steps for each washing buffer:

- transferring a predetermined amount of washing buffer to the non-siliceous surface, and
- drawing the washing buffer through the non-siliceous surface by suction.

5. (amended) The process according to claim 1 further comprising the following steps:

- mixing of the nucleic acids with an immobilization buffer;
- charging of the nucleic acids with the immobilization buffer on to the non-siliceous surface;
- drawing the fluid components through the surface.

A3 9. (amended) The process according to claim 1, characterized by the fact that between the release and the removal steps at least one chemical reaction is carried out on the nucleic acids.

13. (amended) The process according to claim 5, wherein said immobilization buffer includes aqueous solutions of salts of monobasic or polybasic or polyfunctional organic acids with alkaline or alkaline earth metals.

A4 14. (amended) The process according to claim 13, wherein said aqueous solutions of salts of polyfunctional organic acids with alkaline or alkaline earth metals includes aqueous solutions of salts of sodium, potassium, or magnesium with organic dicarboxylic acids.

A5 16. (amended) The process according to claim 13, wherein said aqueous solutions of salts of polyfunctional organic acids with alkaline or alkaline earth metals includes aqueous solutions of salts of sodium or potassium in combination with hydroxycarboxylic or polyhydroxycarboxylic acid.

25. (amended) The process according to claim 1, wherein the nucleic acids immobilized on the surface are released using water.

A6 26. (amended) The process according to claim 5, wherein said immobilization buffer comprises an aqueous solution of a chaotropic agent.

27. (amended) The process according to claim 26, wherein the chaotropic agent is selected from the group consisting of trichloro-acetates, thiocyanates, perchlorates, iodides, guanidinium hydrochloride, guanidinium isothiocyanate, and urea.

28. (amended) The process according to claim 26, wherein said immobilization buffer comprises a 0.01-molar to 10-molar aqueous solution of the chaotropic agent.

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29. (amended) The process according to claim 28, wherein said immobilization buffer comprises a 0.1-molar to 7-molar aqueous solution of the chaotropic agent.

30. (amended) The process according to claim 29, wherein said immobilization buffer comprises a 0.2- molar to 5-molar aqueous solution of the chaotropic agent.

31. (amended) The process according to any one of claims 26 through 30, wherein said immobilization buffer comprises an aqueous solution of sodium perchlorate, guanidinium hydrochloride, guanidinium isothiocyanate, sodium iodide, or potassium iodide.

38. (amended) The process according to claim 36, wherein the membrane is coated with a hydrophobic coating agent selected from the group consisting of paraffins, waxes, metallic soaps, quaternary organic compounds, urea derivates, lipid-modified melamine resins, organic zinc compounds, and glutaric dialdehyde.

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41. (amended) The process according to any one of claims 32 through 40, wherein the membrane has pores which have a range of diameters selected from the group consisting of 0.001 to 50 micrometers, 0.01 to 20 micrometers, and from 0.05 to 10 micrometers.

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44. (amended) The process according to claim 1, wherein a chaotropic agent is used for the immobilization of the nucleic acids.

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45. (amended) The process according to claim 44, wherein the chaotropic agent is selected from the group consisting of trichloro-acetates, thiocyanates, perchlorates, iodides, guanidinium hydrochloride, guanidinium isothiocyanate, and urea.

46. (amended) The process according to claim 44, wherein a 0.01-molar to 10-molar aqueous solution of the chaotropic agent is used for the immobilization of nucleic acids.

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47. (amended) The process according to claim 46, wherein a 0.1-molar to 7-molar aqueous solution of the chaotropic agent is used for the immobilization of nucleic acids.

48. (amended) The process according to claim 47, wherein a 0.2-molar to 5-molar aqueous solution of the chaotropic agent is used for the immobilization of nucleic acids.

49. (amended) The process according to any one of claims 44 through 48, wherein the chaotropic agent is selected from the group consisting of sodium perchlorate, guanidinium hydrochloride, guanidinium isothiocyanate, sodium iodide, and potassium iodide.

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51. (amended) A process for isolating nucleic acids comprising immobilization of nucleic acids on one side of a membrane, followed by release of the nucleic acids and collection of the nucleic acids from the same side of the membrane on which the nucleic acids were immobilized.

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54. (amended) The process according to claim 51, wherein the membrane is a hydrophilic membrane, which is coated with a hydrophobic coating agent selected from the group consisting of paraffins, waxes, metallic soaps, quaternary organic compounds, urea derivates, lipid-modified melamine resins, organic zinc compounds, and glutaric dialdehyde.

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55. (amended) The process according to claim 51, wherein said process for isolating nucleic acids is carried out in a plurality of isolation devices installed on a multi-well plate.

59. (new) The process according to claim 3, wherein the washing step is carried out using a aqueous solution of a salt of an alkaline or alkaline earth metal with a mineral acid.

60. (new) The process according to claim 3, wherein the washing step is carried out using a
an aqueous solution of a salt from a monobasic, polybasic, or polyfunctional organic acid with an
alkaline or alkaline earth metal.

61. (new) The process according to claim 3, wherein the washing step is carried out using an
aqueous solution of a chaotropic agent.

62. (new) The process according to claim 3, wherein the washing step is carried out using a
hydroxyl derivative of an aliphatic or acyclic saturated or unsaturated hydrocarbon.

63. (new) The process according to claim 3, wherein the washing step is carried out using a
phenol or a polyphenol.

64. (new) The process according to claim 38 or claim 54, wherein said metallic soaps are in
admixture with aluminum or zirconium salts.
